

## CLAIMS

What is claimed is:

1. An exhaust system component, comprising:  
a conical shaped sidewall extending outward to a shoulder; and  
a mat protection element extending from said shoulder, away from said  
sidewall;  
5 wherein said shoulder secures to an exhaust system component.
2. The exhaust system component of Claim 1, wherein a shoulder  
diameter is greater than a mat protection element diameter.
3. The exhaust system component of Claim 1, wherein said shoulder  
diameter is equivalent to said mat protection element diameter.
4. The exhaust system component of Claim 1, wherein said mat  
protection element has a conical geometry extending inward from said shoulder.
5. The exhaust system component of Claim 1, wherein said mat  
protection element has a conical geometry extending outward from said shoulder.
6. The exhaust system component of Claim 1, wherein said mat  
protection element has a cylindrical geometry.
7. The exhaust system component of Claim 1, wherein said mat  
protection element further comprises a protrusion.
8. The exhaust system component of Claim 7, wherein said  
protrusion is selected from the group consisting of a rib a dimple, and combinations  
comprising at least one of the foregoing protrusions.

9. The exhaust system component of Claim 7, wherein said protrusion is longitudinally disposed on said mat protection element.

10. A catalytic converter, comprising:  
 a catalyst substrate comprising a catalyst;  
 a shell concentrically disposed around said catalyst substrate;  
 a mat support material disposed between said catalyst substrate  
 5 and said shell, and concentrically around said catalyst substrate;  
 an endcone assembly comprising a conical shaped sidewall  
 extending outward to a shoulder and a mat protection element extending from  
 said shoulder, away from said sidewall, wherein said endcone assembly is  
 securedly attached to said shell at said shoulder.

11. The catalytic converter of Claim 10, wherein an end of  
 said mat protection element contacts at least an edge of said mat support  
 material.

12. The catalytic converter of Claim 10, wherein at least a  
 portion of said mat protection element penetrates at least a portion of said mat  
 support material.

13. The catalytic converter of Claim 10, wherein said mat  
 protection element further comprises at least two protrusions extending from  
 said mat protection element to said.

14. The catalytic converter of Claim 13, wherein said  
 protrusion is selected from the group consisting of a rib a dimple, and  
 combinations comprising at least one of the foregoing protrusions.

15. A method for manufacturing a catalytic converter,  
comprising:

- 5 concentrically disposing a catalyst substrate in a shell;  
disposing concentrically a mat support material between said  
catalyst substrate and said shell, and around said catalyst substrate;  
securing a shoulder of an endcone assembly to said shell, said  
endcone assembly comprising conical shaped sidewall extending outward to a  
shoulder and a mat protection element extending from said shoulder.

16. The method of Claim 15, further comprising disposing  
concentrically said mat protection element within said shell, and between said  
catalyst substrate and said shell.

17. The method of Claim 15, further comprising engaging  
said shell with at least two protrusions from said mat protection element.

18. The method of Claim 17, wherein said protrusion is  
selected from the group consisting of a rib a dimple, and combinations  
comprising at least one of the foregoing protrusions.

19. The method of Claim 15, further comprising contacting at  
least a leading edge of said mat support material with said mat protection  
element.

20. The method of Claim 19, further comprises penetrating at  
least a portion of said mat support material with at least a portion of said mat  
protection element.